

Appln. No. 10/583,370
Amd. dated August 1, 2008
Reply to Office Action of May 1, 2008

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-18 (Cancelled).

19. (Currently amended) A method for treating ~~and/or preventing~~ liver ~~injury~~ cirrhosis, comprising administering to a patient in need thereof a ~~low~~ dose of IL-6, or a mutein, isoform, fused protein, functional derivative, active fraction, circularly permuted derivative or a salt thereof, optionally together with a pharmaceutically acceptable carrier to treat liver cirrhosis, wherein the dose is in the range of 0.1 to 10 mcg/kg weight.

Claim 20 (Cancelled).

21. (Currently amended) The method according to claim ~~20~~ 19, wherein the cirrhosis is compensated cirrhosis.

22. (Currently amended) The method according to claim ~~20~~ 19, wherein the cirrhosis is decompensated cirrhosis.

23. (Currently amended) The method according to claim ~~20~~ 19, wherein the method of treatment includes liver resection.

Claim 24 (Cancelled).

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25. (Previously presented) The method according to claim 19, wherein the dose is about 0.1 mcg/kg or about 1 mcg/kg or about 10 mcg/kg.

Claims 26-27 (Cancelled).

28. (Previously presented) The method according to claim 19, wherein the IL-6, or a mutein, isoform, fused protein, functional derivative, active fraction, circularly permuted derivative or a salt thereof is administered daily or administered once a week or administered three times per week.

Claims 29-30 (Cancelled).

31. (Previously presented) The method according to claim 19, wherein the IL-6 is glycosylated at one or more sites.

32. (Previously presented) The method according to claim 19, wherein the IL-6 is not glycosylated.

33. (Withdrawn) The method according to claim 19, wherein the fused protein comprises an immunoglobulin (Ig) fusion.

34. (Withdrawn) The method according to claim 19, wherein the fused protein comprises IL-6 and gp80 or a fragment thereof.

35. (Withdrawn) The method according to claim 19, wherein the functional derivative comprises at least one moiety attached to one or more functional groups which occur as one or more side chains on the amino acid residues.

36. (Withdrawn) The method according to claim 35, wherein the moiety is a polyethylene moiety.

37. (Withdrawn) The method according to claim 19, wherein a cell expressing an IL-6 or a mutein, isoform, fused protein, active fraction or circularly permuted derivative thereof is administered.

38. (Withdrawn) The method according to claim 19, wherein an expression vector comprising the coding sequence of an IL-6 or a mutein, isoform, fused protein, active fraction or circularly permuted derivative thereof is administered.

39. (Withdrawn) The method according to claim 38, wherein the vector is a lentiviral vector.

40. (Currently amended) A method for treating ~~and or preventing~~ a liver cirrhosis including resection, comprising administering to a patient in need thereof an effective ~~low~~ dose of IL-6, a mutein, fused protein, active fraction or circularly permuted derivative thereof, or comprising administering to a

patient in need thereof an expression vector comprising the coding sequence of IL-6, a mutein, fused protein, active fraction or circularly permuted derivative thereof or a cell producing the same, to treat liver cirrhosis including resection, wherein the dose is in the range of 0.1 to 10 mcg/kg weight.

41. (Currently Amended) A method for treating ~~or preventing a liver injury~~ cirrhosis, comprising administering to a patient in need thereof an effective ~~low~~ dose of IL-6, or a mutein, fused protein, active fraction or circularly permuted derivative thereof, or comprising administering to a patient in need thereof an expression vector comprising the coding sequence of IL-6, a mutein, fused protein, active fraction or circularly permuted derivative thereof, to treat liver cirrhosis, wherein the dose is in the range of 0.1 to 10 mcg/kg weight.

Claim 42 (Cancelled).

43. (Currently Amended) The method of treatment according to claim 41, wherein the patient in need suffers from end stage liver ~~insufficiency~~ cirrhosis.

44. (Currently Amended) The method of treatment according to claim 41, wherein the patient in need suffers from liver ~~insufficiency~~ cirrhosis after resective liver surgery.

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45. (Currently Amended) The method of treatment according to claim 41, wherein the patient in need suffers from acute liver ~~insufficiency~~ cirrhosis.

46. (Original) The method according to claim 41, wherein injury is caused by resection.

Claim 47 (Cancelled).

48. (Previously presented) The method according to claim 46, wherein the administration is carried out before during and/or after resection treatment.

Claim 49 (Cancelled).

50. (Previously presented) The method according to claim 41, wherein the IL-6, or a mutein, isoform, fused protein, functional derivative, active fraction, circularly permuted derivative or a salt thereof is administered daily or administered three times per week or administered once a week.

Claims 51-52 (Cancelled).

53. (Original) The method of treatment according to claim 41, wherein the cirrhosis is severe.

54. (Original) The method of treatment according to claim 41, wherein the cirrhosis is acute.

55. (Currently amended) A method for treating ~~a~~ liver ~~injury~~ cirrhosis followed by engraftment, comprising administering to a patient in need thereof an effective ~~low~~ dose of IL-6, a mutein, fused protein, active fraction or circularly permuted derivative thereof, or comprising administering to a patient in need thereof an expression vector comprising the coding sequence of IL-6, a mutein, fused protein, active fraction or circularly permuted derivative thereof, to treat liver cirrhosis, wherein the dose is in the range of 0.1 to 10 mcg/kg weight.

Claim 56 (Cancelled).

57. (Currently amended) The method of treatment according to claim ~~56~~ 55, wherein the cirrhosis is severe.

58. (Currently amended) The method of treatment according to claim ~~56~~ 55, wherein the cirrhosis is acute.

59(New). The method of claim 55, wherein the cirrhosis is caused by hepatotoxic agents.

60(New). The method of claim 19, wherein the cirrhosis is caused by hepatotoxic agents.

61(New). The method of claim 40, wherein the cirrhosis is caused by hepatotoxic agents.

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62(New). The method of claim 41, wherein the cirrhosis is caused by hepatotoxic agents.